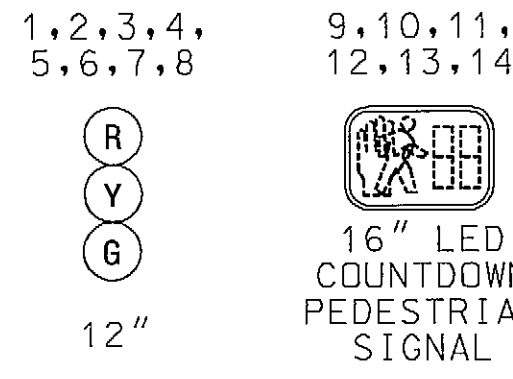
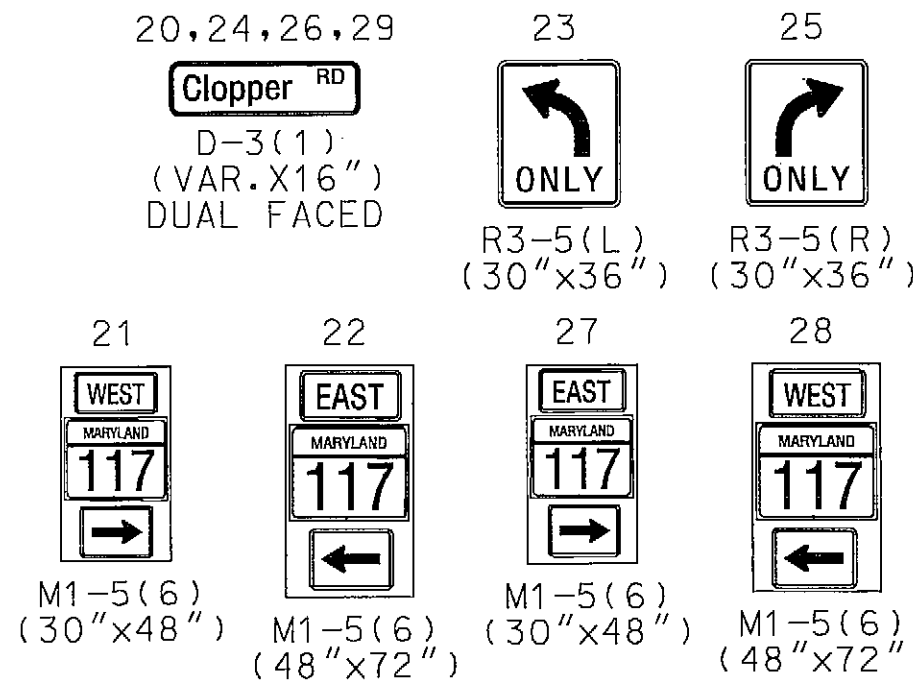


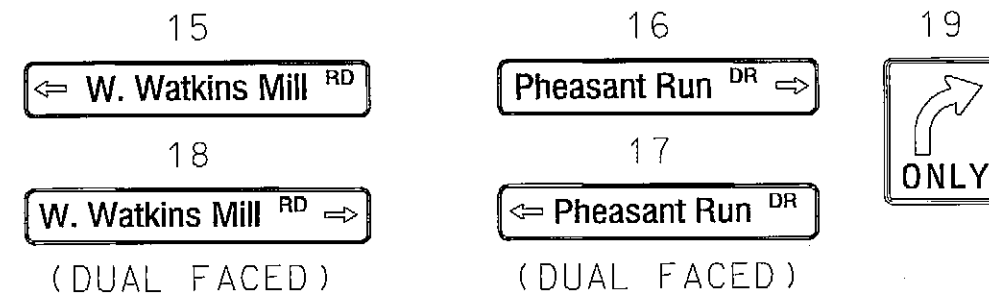
PROPOSED LED SIGNALS



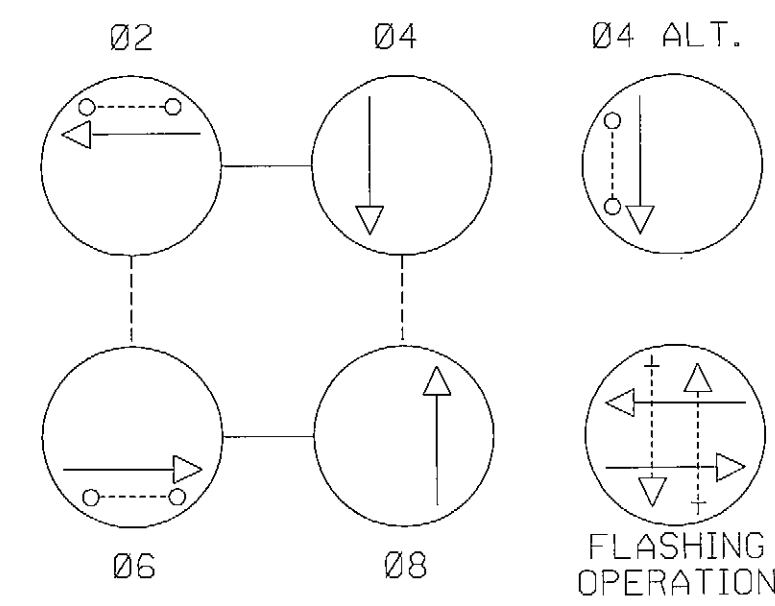
PROPOSED SIGNS



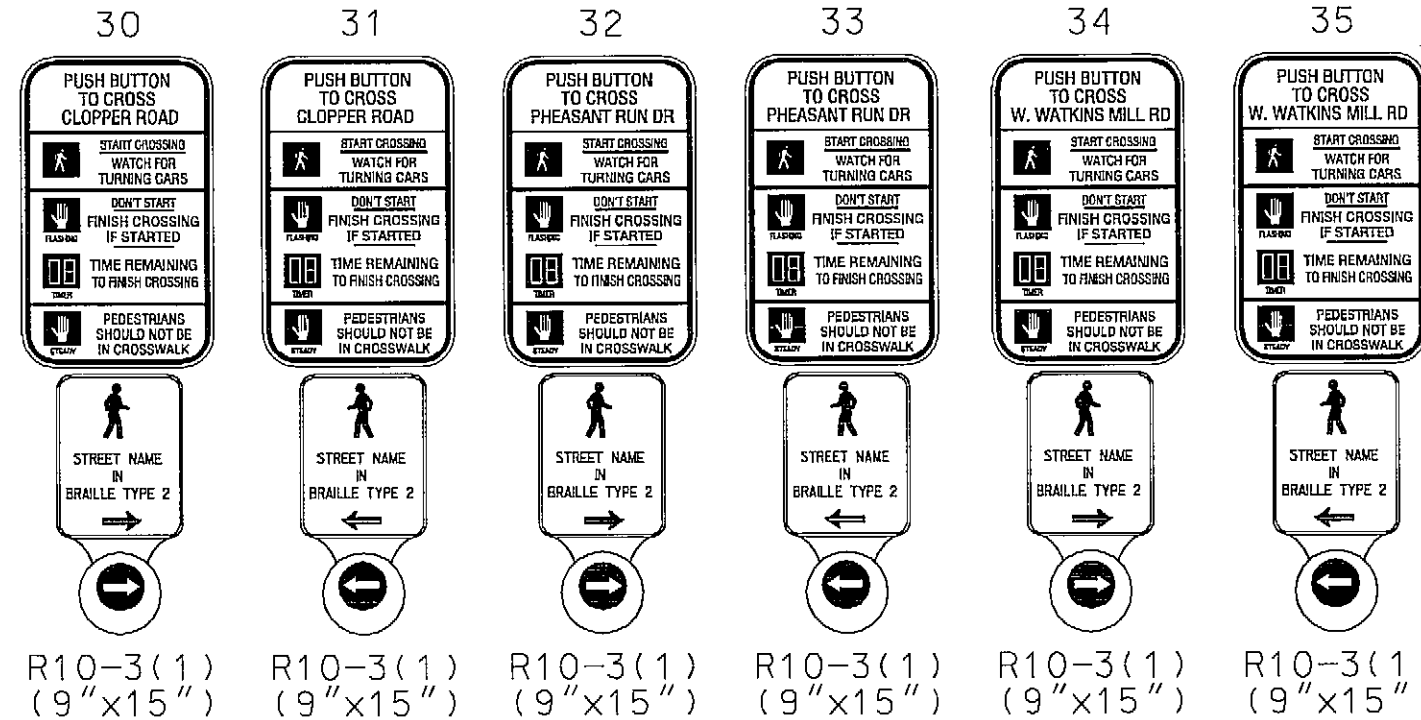
EXISTING SIGNS TO REMAIN



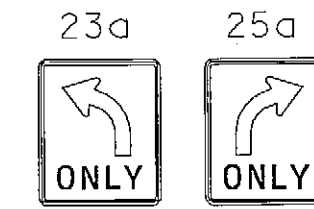
NEMA PHASING



PROPOSED ACCESSIBLE PUSHBUTTON AND SIGN



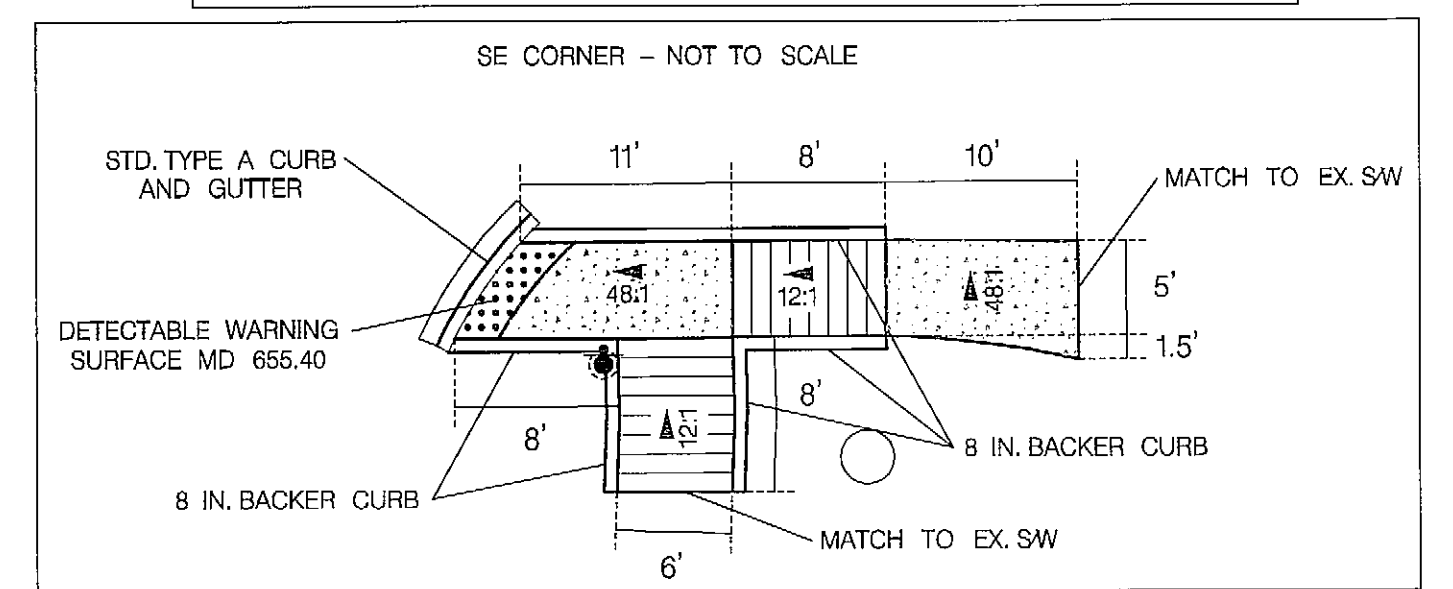
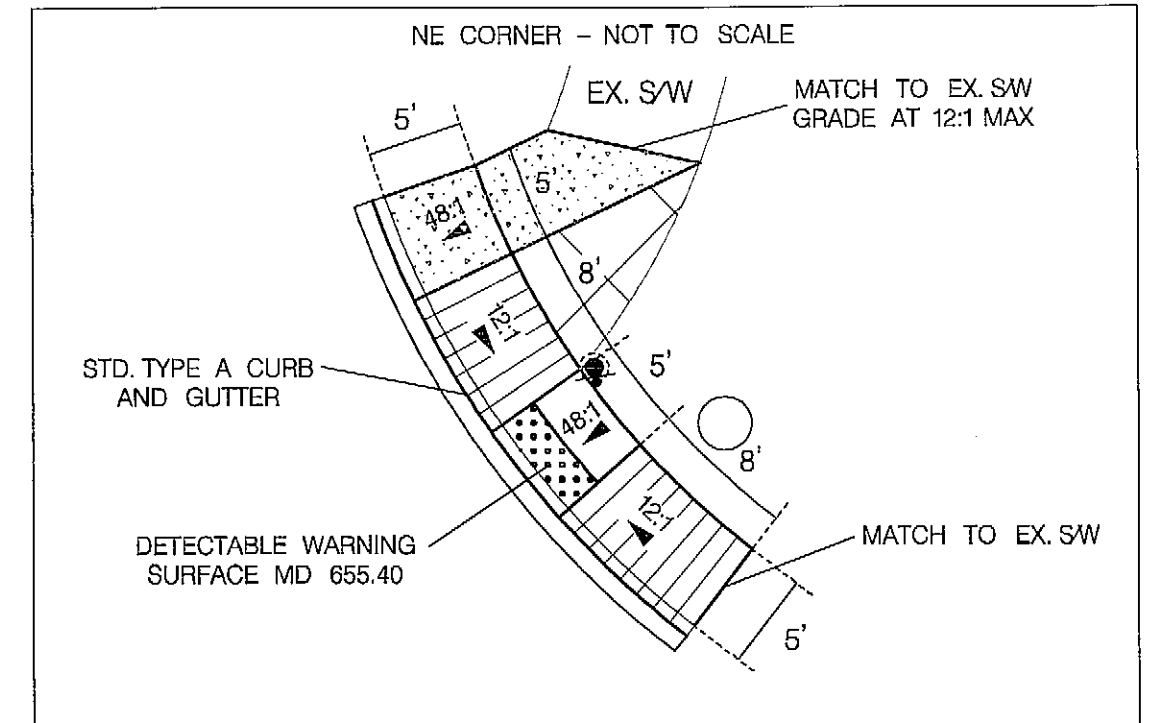
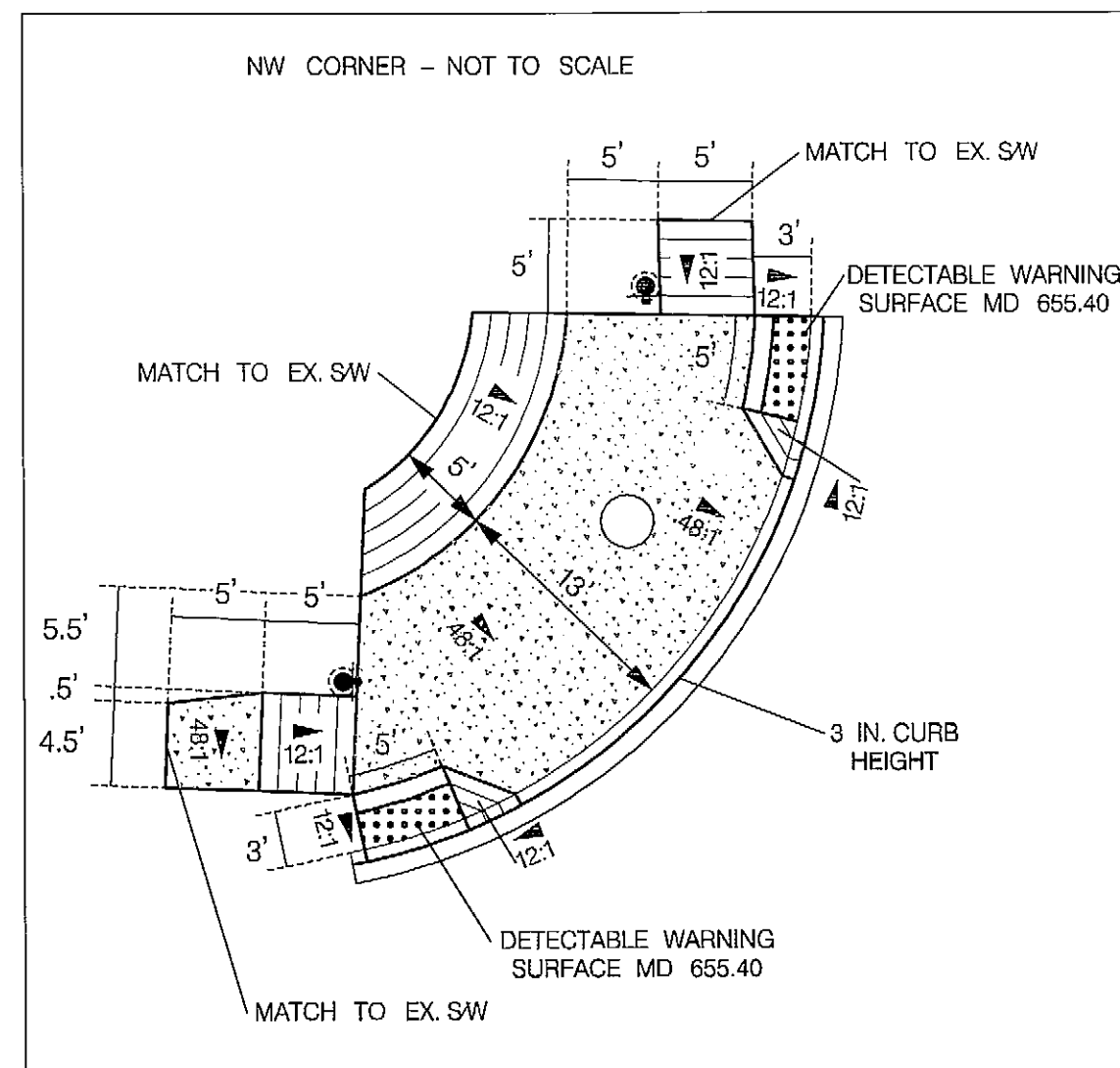
EXISTING SIGNS TO BE REMOVED



NOTE:  
PHASES ASSOCIATED BY A DASHED LINE MAY/WILL OPERATE CONCURRENTLY.  
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

GENERAL NOTES

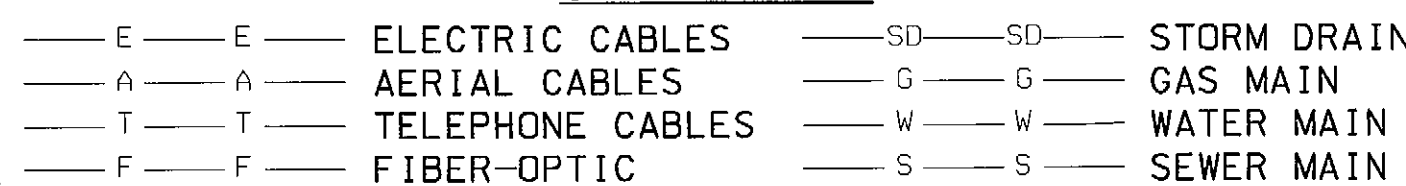
1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
2. THE CONTRACTOR SHALL CONTACT MISS UTILITY TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS. TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
4. THE CONTRACTOR SHALL INTEGRATE PROPOSED CONCRETE FOUNDATIONS WITH NEW SIDEWALK / RAMP WHERE NECESSARY. THE FOUNDATIONS SHALL BE FLUSH WITH AND PART OF THE FINAL CURB OR SIDEWALK GRADE TO INCREASE ACCESSIBILITY OF PUSHBUTTONS.
5. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED ELECTRICAL CABLES.
6. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATION.
7. THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE LOCATION(S) PRIOR TO INSTALLATION.
8. THE CONTRACTOR SHALL CENTER THE CROSSWALKS ON NEWLY CONSTRUCTED RAMPS.
9. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
10. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E-09 AND FIG. 4E-2, AND THE NCHRP PUBLICATION, 'ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE'. IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
11. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 IN. x 60 IN. LEVEL LANDING AREA AND DOES NOT HAVE TO REACH MORE THAN 18 IN. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
12. THE 10 FT. MINIMUM SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER OF POLE.
13. PUSHBUTTON ARROWS ARE TO BE TURNED PARALLEL TO THE CROSSWALK FOR WHICH THEY ARE INTENDED.
14. ALL TRAFFIC SIGNAL USE EXISTING LOCATION PRIOR TO SIDEWALK INSTALLATION.
15. THE CONTRACTOR SHALL REMOVE AND REPLACE CONCRETE SIDEWALK AT THE NEAREST JOINT.
16. THE CONTRACTOR SHALL NOTIFY MR. KAMAL HAMUD AT 240-777-8761 OF THE MONTGOMERY COUNTY DOT SEVENTY TWO (72) HOURS PRIOR TO BEGINNING CONSTRUCTION.
17. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
18. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
19. EXISTING SIGN IN NORTH LEG MEDIAN TO BE RELOCATED BY OTHERS. CONTACT NV HOMES AT 301-990-1692 AND/OR RYAN HOMES AT 240-631-9428 TO COORDINATE.



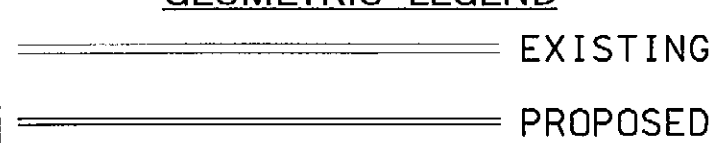
CONSTRUCTION DETAILS

- A. REMOVE EXISTING PEDESTRIAN SIGNALS AND PUSHBUTTON. INSTALL A 20 FT. LIGHTING ARM WITH 250 WATT HPS LAMP AND LUMINAIRE, VIDEO DETECTION CAMERA AND SIGNS ON EXISTING STRAIN POLE.
- B. REMOVE EXISTING PEDESTRIAN SIGNALS AND PUSHBUTTON. INSTALL A 20 FT. LIGHTING ARM WITH 250 WATT HPS LAMP AND LUMINAIRE, VIDEO DETECTION CAMERA AND LED COUNTDOWN PEDESTRIAN SIGNAL HEAD ON EXISTING STRAIN POLE.
- C. REMOVE EXISTING PEDESTRIAN SIGNALS AND PUSHBUTTON. INSTALL A 20 FT. LIGHTING ARM WITH 250 WATT HPS LAMP AND LUMINAIRE, VIDEO DETECTION CAMERA AND SIGNS ON EXISTING STRAIN POLE.
- D. REMOVE EXISTING PEDESTRIAN SIGNALS AND PUSHBUTTON. INSTALL A 20 FT. LIGHTING ARM WITH 250 WATT HPS LAMP AND LUMINAIRE, VIDEO DETECTION CAMERA ON EXISTING STRAIN POLE.
- E. INSTALL A 5 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01. BREAKAWAY COUPLINGS, ACCESSIBLE PUSHBUTTON (ARROW LEFT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS W. WATKINS MILL RD (NOTE: 1-2 IN. 90 DEGREE PVC BEND)".
- F. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01. BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW LEFT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS CLOPPER ROAD (NOTE: 1-2 IN. 90 DEGREE PVC BEND)".
- G. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01. BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW RIGHT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS CLOPPER ROAD (NOTE: 1-2 IN. 90 DEGREE PVC BEND)".
- H. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01. BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW RIGHT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS PHEASANT RUN DR (NOTE: 1-2 IN. 90 DEGREE PVC BEND)".
- I. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED.
- J. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED.
- K. INSTALL ELECTRICAL HANDHOLE.
- L. REMOVE EXISTING SIGNAL HEAD AND INSTALL NEW 12 IN. LED VEHICULAR TRAFFIC SIGNAL HEAD. USE EXISTING ELECTRICAL CABLE.
- M. REMOVE EXISTING OVERHEAD SIGN AND INSTALL NEW OVERHEAD SIGN.
- N. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT NEW SIDEWALK RAMP (SEE DETAIL THIS SHEET).
- O. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT NEW SIDEWALK RAMP (SEE DETAIL THIS SHEET).
- P. INSTALL 12 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES FOR CROSSWALK.
- Q. INSTALL 24 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES FOR STOPLINE.
- R. REMOVE EXISTING MEDIAN CUT-THROUGH AND CONSTRUCT NEW 5 FT. (5 FT. WIDE) WITH DETECTABLE WARNING SURFACES SHA STD. MD 655.40. INSTALL TYPE A CURB SHA STD. MD 620.02 IN LIEU OF SIDE FLARES (SEE NOTE 19).
- T. ABANDON EXISTING LOOP DETECTOR.
- U. USE EXISTING HANDHOLE.
- V. USE EXISTING CONDUIT.
- W. USE EXISTING BASE MOUNTED CABINET.
- X. REMOVE EXISTING HANDHOLE AND BACKFILL. CAP AND ABANDON EXISTING CONDUIT.
- Y. REMOVE EXISTING MARKINGS.
- Z. INSTALL OVERHEAD SIGN ON EXISTING SPAN WIRE.
- AA. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED. LOCATE AND USE UNUSED 4 IN. BEND IN CABINET.
- BB. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED AND ABANDON EXISTING CONDUIT.
- CC. INSTALL 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01. BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW RIGHT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS W. WATKINS MILL RD (NOTE: 1-2 IN. 90 DEGREE PVC BEND)".
- DD. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01. BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW LEFT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS PHEASANT RUN DR (NOTE: 1-2 IN. 90 DEGREE PVC BEND)".
- EE. CONSTRUCT 4 IN. CONCRETE PAD (48 IN. x 48 IN.) FOR EXISTING BASE MOUNTED CABINET PER MD 816.03.

UTILITY LEGEND



GEOMETRIC LEGEND



**STV**  
STV Incorporated  
7125 Ambassador Road, Suite 200  
Baltimore, MD 21244  
www.stvinc.com

TOD NO: XX354-38  
SHA NO: MO255K5F  
MD 117 @ Watkins Mill Rd/Pheasant Run Blvd

APPROVALS	
TEAM LEADER	
ASST. DIR. CHIEF	
DIVISION CHIEF	
OFFICE DIRECTOR	

REVISIONS	
1	INSTALL APSCPS ALONG NORTH, SOUTH & WEST LEGS.
2	SHA# XX354-38R TRMS# K380
3	SHA# XX354-38R TRMS# K380
4	SHA# XX354-38R TRMS# K380
5	SHA# XX354-38R TRMS# K380
6	SHA# XX354-38R TRMS# K380
7	SHA# XX354-38R TRMS# K380
8	SHA# XX354-38R TRMS# K380
9	SHA# XX354-38R TRMS# K380
10	SHA# XX354-38R TRMS# K380
11	SHA# XX354-38R TRMS# K380
12	SHA# XX354-38R TRMS# K380
13	SHA# XX354-38R TRMS# K380
14	SHA# XX354-38R TRMS# K380
15	SHA# XX354-38R TRMS# K380
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31	SHA# XX354-38R TRMS# K380
32	SHA# XX354-38R TRMS# K380
33	SHA# XX354-38R TRMS# K380
34	SHA# XX354-38R TRMS# K380
35	SHA# XX354-38R TRMS# K380

<b>SHA</b> STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 117 (CLOPPER ROAD) AT W. WATKINS MILL ROAD /PHEASANT RUN DRIVE GAITHERSBURG, MARYLAND	
<b>SIGNALIZATION PLAN SHEET</b>	
SCALE 1" = 20' ADVERTISED DATE 3-16-98 CONTRACT NO.	
DESIGNED BY R.R. ZACHERL (FOR STS)	COUNTY MONTGOMERY
DRAWN BY W.J. NIES (FOR STS)	LOGMILE 1501710.50
CHECKED BY	TMS NO.
F.A.P. NO.	TOD NO.
TS NO. 2457-A	DRAWING SG-01 OF 02
SHEET NO. 01 OF 02	

PLOTTED: Monday, May 02, 2011 AT 03:01 PM  
FILE: E:\PROJECTS\4019255\4019255\_0094\Drawings\TRA\p8g-MD117.dgn